

a positive significance in the formation of mineral deposits. In a reef near Wellington, New South Wales, I discovered quartz traversed by thin veins of agate, and with fortification agate in small geodes in the mass. Inside one of these geodes was a lining of quartz crystals, and concerning this, to my mind, remarkable example, I think you will admit that there is something very interesting to be unriddled in those natural changes which can fill the crevices and in part the cavities of a *massive quartz reef* with colloidal silica, and afterwards fill up the interior of the colloidal deposit with crystals of quartz.

EXPLANATION OF ACCOMPANYING PLATES.

FIRST PLATE.

1. Annular residue, from evaporation of a drop of water from interior of enhydros; real size.
 - 2 and 3. Microscopic view of portions of the margin of this residue.
 4. Examples of crystalline forms, obtained by recrystallizing the residue obtained from fifteen drops of water from enhydros.
 5. Residue of silicic acid, patches left on the glass capsule, as though a pellicle of colloidal silica had dried up. This residue is insoluble, or nearly so, in distilled water.
 6. The same film broken up, and floating in shreds in water added to it.
 7. Impress of crystals in this coloured colloidal residue.
The parallel ruled lines, in figures 6 and 7, represent a pale ochreous tint in the original drawing.
- The second plate shows crystalline structure of laminæ forming walls of the enhydros.

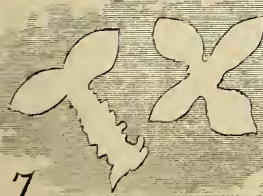
ART. XXIII.—*On a Self-Acting Hydrostatic Chime and Clock Weight.* By ALEX. K. SMITH, C.E., F.R.S. S.A.

[Read 8th May, 1871.]

A considerable amount of time and labour, and consequently expense, is required under the system at present in use, to wind up the heavy driving weights of large clocks, chimes, &c.; the expense being further increased by the necessity of making special preparation for a long descent of the driving-weights in the tower or building where the clock or chimes are situated; and as the weights are in most instances very heavy there is more or less danger attending their use.

During the time that clocks and chimes for the New Post Office and Town Hall were under consideration, I thought over the subject at some length, with the view of altogether dispensing with the laborious process of winding up the heavy driving-weights generally used, and for that special purpose designed the plan I now submit to you.

Whilst the Post Office clock was being constructed under



Saline constituents of Enhydros.

